

CLAIMS:

1. A radially anisotropic sintered magnet of annular shape having a remanence, in which the remanence in a radial direction of the annulus increases and decreases at intervals of 90° in a circumferential direction of the annulus, and the remanence in a radial direction over the entire circumference of the annulus has a maximum of 0.95 to 1.60 T and a minimum equal to 50 to 95% of the maximum.
2. The radially anisotropic annular sintered magnet of claim 1, which has an inner diameter of up to 90 mm, an outer diameter of up to 100 mm, an inner diameter/outer diameter ratio of at least 0.3, and a height of up to 70 mm.
3. A permanent magnet motor comprising a plurality of stator teeth, wherein the radially anisotropic annular sintered magnet of claim 1 or 2 is incorporated after it is magnetized in $4n$ poles (wherein n is an integer of 1 to 20) so that the boundary between N and S poles is located within the range that is centered at the radial direction where the remanence exhibits the minimum and extends $\pm 10^\circ$ therefrom in a circumferential direction.
4. The permanent magnet motor of claim 3, wherein the magnetization is multi-pole skew magnetization and the skew angle is equal to $1/10$ to $2/3$ of the angle of one pole in a circumferential direction of the radially anisotropic annular sintered magnet.
5. The permanent magnet motor of claim 3, wherein the stator tooth is a skew tooth having a skew angle equal to $1/10$ to $2/3$ of the angle of one pole in a circumferential direction of the radially anisotropic annular sintered magnet.